

**In the Title:**

Please replace the title of the application with the following title:  
REACTOR WALL FOR AN ENTRAINED-FLOW GASIFIER

**Amendments to the Specification:**

Please replace paragraph [0001] with the following amended paragraph:

This invention relates generally to a wall for a reactor, and more specifically, to a composite wall formed from a number of materials and with a number of construction features, for use as a reactor wall for ~~a fluidized-flow~~ an entrained-flow gasifier for gasifying solid and high viscosity liquid conventional fuels, by-products, and waste materials.

Please replace paragraph [0003] with the following amended paragraph:

In the technology of gas production, the autothermic ~~fluidized-flow~~ entrained-flow gasification of solid, liquid, and gaseous combustible materials has been known for many years. The ratio of fuel to oxygen-containing gasification agent is selected so that the higher carbon compounds are cracked to form synthesis gas components such as CO and H<sub>2</sub>, which improve the quality of the synthesis gas, whereas the inorganic components are discharged as molten slag (Ch. Higman, "Gasification", Elsevier 2003, p. 109).

Please replace paragraph [0008] with the following amended paragraph:

According to the present invention, a reactor wall for ~~a fluidized-flow~~ an entrained-flow gasifier for carbon-containing fuels, by-products, and waste materials combined with an oxygen-containing oxidizing agent, and with the gasifier having a gasification chamber capable of withstanding pressures between ambient pressure and 100 bars [1,450 psi], in which the reaction chamber contour is surrounded by a cooling system, such that the pressure in the cooling system is always kept higher than the pressure in the reaction space, is provided alternatively with cooling channels that are welded onto the inside surface of the pressure shell and with a profiled cooling wall, which forms a ring-shaped gap within at least a portion of the gasification chamber formed by the pressure shell. A cooling medium is circulated through both the cooling channels and the ring-shaped gap. The components are designed so that that the pressure differences between the cooling channels or the ring-shaped gap and the gasification chamber are absorbed by the cooling channels welded to the pressure shell or by the profiled cooling wall. The pressure in the cooling channels and in the ring-shaped gap is maintained at 1 - 2 bars [14.5 - 29.0 psi] above the pressure in the gasification chamber. This pressure difference is intended to make it impossible, in the event of a leak, for gasification gas to escape from the gasification chamber into the cooling channels or into the ring-shaped gap; instead, cooling medium will always, in such a case, enter the gasification space. The cooling medium utilized and circulated through the cooling channels or ring-shaped gap is a liquid coolant, typically water.